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CLAIMS

WHAT IS CLAIMED IS:

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1. A medical device, comprising:

an elongated body; and

a plurality of concave slots formed on the elongate body;

wherein a surface of each concave slot is substantially flat in a first cross section and is substantially curved in a second cross section.

- 2. The medical device of claim 1, wherein the first cross section is perpendicular to the second cross section.
- 3. The medical device of claim 1, wherein the surface of at least one of the concave slots is substantially flat in a radial cross section of the medical device.
- 4. The medical device of claim 3, wherein the surface of at least one of the concave slots is substantially flat in an axial cross section of the medical device.
- 5. The medical device of claim 1, wherein the surface of at least one of the concave slots is substantially flat in a axial cross section of the medical device.
 - 6. The medical device of claim 1, wherein the plurality of concave slots are formed in a stainless steel portion of the elongated body.
 - 7. The medical device of claim 1, wherein the plurality of concave slots are formed in a plastic portion of the elongated body.
- 20 8. The medical device of claim 1, wherein the medical device is a needle.

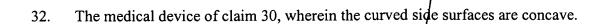
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- 9. The medical device of claim 8, wherein the first cross section is perpendicular to the second cross section.
- 10. The medical device of claim 8, wherein the surface of at least one of the concave slots is substantially flat in a radial cross section of the medical device.
- 11. The medical device of claim 8, wherein the surface of at least one of the concave slots is substantially flat in an axial cross section of the medical device.
 - 12. The medical device of claim 1, wherein the medical device is a catheter.
 - 13. The medical device of claim 12, wherein the first cross section is perpendicular to the second cross section.
 - 14. The medical device of claim 12, wherein the surface of at least one of the concave slots is substantially flat in a radial cross section of the medical device.
 - 15. The medical device of claim 12, wherein the surface of at least one of the concave slots is substantially flat in an axial cross section of the medical device.
- 16. The medical device of claim \ further comprising a contoured surface on the
 elongate body, the plurality of concave slots being formed in the contoured surface,
 wherein each concave slot has a bottom surface that follows the contours of the contoured
 surface and curved side surfaces at each end of the bottom surface.
 - 17. The medical device of claim 16, wherein the bottom surface is convex.
 - 18. The medical device of claim 16, wherein the curved side surfaces are concave.

- 19. A medical device, comprising:
- a contoured surface having a plurality of concave slots formed thereon, wherein each concave slot has a bottom surface that follows the contours of the contoured surface and curved side surfaces at each end of the bottom surface.
- 5 20. The medical device of claim 19, wherein the bottom surface is convex.
 - 21. The medical device of claim 19, wherein the curved side surfaces are concave.
 - 22. The medical device of claim 20, wherein the curved side surfaces are concave.
 - 23. The medical device of claim 19, wherein the contoured surface is made of stainless steel.
- 10 24. The medical device of claim 19, wherein the contoured surface is made of plastic.
 - 25. The medical device of claim 19, wherein the medical device is a needle.
 - 26. The medical device of claim 25, wherein the bottom surface is convex.
 - 27. The medical device of claim 26, wherein the curved side surfaces are concave.
- 15 28. The medical device of claim 26, wherein the curved side surfaces are concave.
 - 29. The medical device of claim 19, wherein the medical device is a catheter.
 - 30. The medical device of claim 29, wherein the bottom surface is convex.
 - 31. The medical device of claim 29, wherein the curved side surfaces are concave.

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- 33. The medical device of claim 19 further comprising a plurality of concave slots formed on the contoured surface, wherein a surface of each concave slot is substantially flat in a first cross section and is substantially curved in a second cross section, the first cross section being perpendicular to the second cross section.
- 34. A medical instrument adapted to be inserted into a body, comprising:

 a surface having a plurality of concave slots formed thereon, wherein a surface of each concave slot is substantially straight in a first cross section and is substantially curved in a second cross section.
- 10 35. The medical device of claim 34, wherein the first cross section is perpendicular to the second cross section.
 - 36. The medical device of claim 34, wherein the surface is made of stainless steel.
 - 37. The medical device of claim 34, wherein the surface is made of plastic.
 - 38. The medical device of claim 34, wherein the medical device is a needle.
- 15 39. The medical device of claim 34, wherein the medical device is a catheter.